



### ANTI-NAUSEA MEDICATION

NASA JSC typically prescribes an anti-nausea medication called SCOP-DEX to flight crew members in an effort to ease/control “the vomit reflex” during flight on-board the KC-135A. It is available to participants in the RGSFOP by prescription ONLY from a NASA JSC Flight Surgeon and distributed ONLY just prior to flight.

The information provided below is designed to help your flight crew members decide whether or not they would like to take an anti-nausea medication during your team’s flight. Please distribute this information to the entire flight crew (including journalist) and provide an approximate “headcount” of how many team members will be requesting a prescription for anti-nausea medication upon arrival at Ellington Field.

### ANTI-NAUSEA MEDICATION INFORMATION

As you prepare for your flight aboard NASA’s KC-135A Reduced Gravity Aircraft, one of the issues to be considered is the possibility that you will become nauseated during flight. The demanding environment of the “K-Bird” can, in some individuals, trigger the “vomit reflex” due to the roller-coaster-like trajectory it flies. Years of experience at NASA have shown that anti-nausea medication, and in particular a compound called “SCOP-DEX,” may have a beneficial effect in preventing the vomit reflex in some people. SCOP-DEX is a controlled substance used by NASA for thirty years with almost no adverse effects. SCOP-DEX is not commercially available; however, it is available to flight crewmembers participating in the NASA Reduced Gravity Student Flight Opportunities Program by prescription ONLY from a JSC Flight Surgeon. It is strongly recommended that you discuss the use of SCOP-DEX, or any anti-nausea medication, with your personal physician before making any decision regarding its use.

### SCOP-DEX FACTS

- SCOP-DEX is a combination of Scopolamine (0.4mg) and Dexedrine (5 mg) in a gel capsule. This combination is used in an attempt to avoid motion sickness in passengers on-board the KC-135A aircraft.
- Taking SCOP-DEX, or any other anti-nausea medication, is not required for flight. Persons who take SCOP-DEX do so on a strictly voluntary basis. NASA considers SCOP-DEX to be a safe and effective medication.
- Nausea and vomiting occur in about 30% of passengers on-board the KC-135A. It is believed that anti-nausea medication like SCOP-DEX inhibits vestibular inputs to the central nervous system, thereby preventing in many cases the vomiting reflex. SCOP-DEX also has a direct action on the vomiting center in the brain stem.
- At NASA, a small amount of SCOP-DEX is placed in a gelatin capsule and given to KC-135A aircraft passengers strictly on a volunteer basis. SCOP-DEX is not a requirement for flight.
- SCOP-DEX has been used at NASA for more than thirty years. Approximately 50,000 doses have been administered with almost no adverse effects.
- Side effects while using SCOP-DEX are possible, but not probable in most people. The most common side effects reported are: drowsiness, dryness of the mouth, over-stimulation, and headache. Dry-mouth is the most common of the side effects reported, but it does not usually last very long. Almost no other symptoms or side effects occur.
- SCOP-DEX is usually given one hour prior to flight. The effect usually lasts 4-6 hours, but in some rare cases, the medication remains effective for up to 12 hours. Team members who have taken SCOP-DEX are advised not to drive after the flight ends, and must name a Designated Driver to transport them from the airfield back to their desired location.
- Recommended precautions: (1) Consult your physician before taking SCOP-DEX with other medications; (2) You may perspire less after taking SCOP-DEX, so avoid heat and vigorous exercise; (3) DO NOT drink alcohol while taking SCOP-DEX; (4) If you experience confusion, restlessness, disorientation, hallucinations or any other adverse effect, report these to a physician immediately; (5) DO NOT DRIVE after taking SCOP-DEX; use a Designated Driver.
- Some fatigue may be experienced after the medication “wears off.” In most cases the medication’s effect is gone within a few hours after the flight and the passenger is “back to normal.”
- For additional information about SCOP-DEX, its use in general or with other medications, and/or side effects, contact Mike Fox at NASA JSC via email <mike.fox1@jsc.nasa.gov> or telephone 281-792-5724.